CLAIM AMENDMENTS

1. (Currently Amended)   A method for detecting a metabolic disorder in an individual, comprising:

    (a)   contacting a sample comprising:

        (i) ~~one or more metabolically indicative enzymes~~ <u>biotinidase</u> and

        (ii) one or more metabolic analytes,

with <u>biocytin</u> ~~one or more substrates for said one or more enzymes~~ to produce a reaction admixture, under conditions wherein ~~at least one of~~ said <u>biotinidase</u> ~~enzymes~~ is capable of acting on <u>said biocytin,</u> ~~a corresponding substrate~~ to generate at least one product, and wherein one or more protease inhibitors are present;

    (b)   contacting said reaction admixture with a reagent that inhibits the ability of said ~~one or more enzymes~~ <u>biotinidase</u> to act on <u>biocytin</u> ~~a corresponding substrate~~, wherein said one or more metabolic analytes and said at least one product are soluble in said reagent; to produce a test sample and

    (c)   determining the presence or amount of said one or more metabolic analytes and said at least one product contained in said test sample using mass spectrometry,

wherein a determined presence or amount of said one or more metabolic analytes and said at least one product correlates with presence or absence of said metabolic disorder.

2. (Original) The method of claim 1, wherein said sample is a body fluid sample.

3. (Original) The method of claim 2, wherein said body fluid sample is blood.

4. (Original) The method of claim 1, wherein said sample is dried.

5. (Original) The method of claim 1, wherein said individual is a human suspected of having a metabolic disorder.

6. (Original) The method of claim 1, wherein said individual is a neonate.

7. (Original) The method of claim 1, wherein said individual is a newborn.

8. (Original) The method of claim 1, wherein said individual is a child.

9. (Original) The method of claim 1, wherein said individual is an adult.

10. (Original) The method of claim 1, wherein said metabolic disorder is an inborn error of metabolism.

11. (Original) The method of claim 1, wherein said metabolic disorder is an acquired metabolic disorder.

12. - 15. (Canceled)

16. (Original) The method of claim 1, wherein said metabolic analyte is one or more amino acids.

17. (Original) The method of claim 1, wherein said metabolic analyte is an acylcarnitine or plurality of acylcarnitines.

18. (Original) The method of claim 1, wherein step (a) further comprises contacting said sample with one or more reference substrates.

19. (Original) The method of claim 1, wherein step (b) further comprises contacting said sample with one or more reference products.

20. (Original) The method of claim 1, wherein step (d) further comprises, prior to

determining, adding one or more reference products corresponding to the at least one product.

21. (Original)   The method of claim 1, wherein step (d) further comprises, prior to determining, adding one or more reference analytes corresponding to the one or more metabolic analytes contained in said sample.

22. (Original) The method of claim 1, wherein said reaction admixture is aqueous.

23. (Original) The method of claim 22, wherein said reagent is non-aqueous.

24. (Original) The method of claim 23, wherein said reagent comprises an organic solvent.

25. (Original) The method of claim 23, wherein said reagent comprises an alcohol.

26. (Original) The method of claim 25, wherein said reagent is methanol.

27. (Original)   The method of claim 1, wherein said mass spectrometry is tandem mass spectrometry.

28. (Currently Amended) The method of claim 1, wherein one of said protease inhibitors is ~~COMPLETE~~ a protease cocktail.

29. (Original)   The method of claim 1, wherein one of said protease inhibitors is PEPSTATIN.

30. - 39. (Canceled)